# EMPLIUYMENT and PAY RILLL.S 

## DETAILED REPORT JULY 1948

## Prepared by

## Division of Employment and Occupational Outlook Branch of Employment Statistics <br> Samuel Weiss. Chiet

## ESTIMATES OF MANUPACTURTNG PRODUCTION WQRKERS - NEW SERIES <br> Industries in Selected Major Industry Groups

In this detailed report the Bureau presents a new series of productionworker estimates for the individual industries comprising the major industry groups listed below. The new estimates have been adjusted to Federal Security Agency aata through 1946 and have been carried forward from 1946 bench-mark levels, thereby providing consistent series.

Only the industries indicated below vere affected; ocmparinon of the remaining industries, in the groups specified, with 1946 bench-mark levels indicated that no adjustment was necessary.

Lumber and timber basic products: Sawmills and logging camps
Planing and plywood mills
Leather and leather products:
Leather
Boots and shoea
Paper and allied products:
Paper and pulp
Paper goods, other
Printing, publishing, and allied industries:
Printing; book and job
Products of petroleum and coal: Petroleum refining

Rubber products:
Rubber tires and inner tubes
This report shows the new production-worker employment estimates and indexes of employment and weekly pay rolls for the months currently presented. A set of summary sheets presenting comparable data from January 1939, to date, for the industries in these groups will be provided upon request to the Bureau of Labor Statistics. Such requests should specify the series desired.

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## HMPLOYMENT AND PAY ROLLS

Detailed Report
July 1948

| Explanatory notes outlinisg briefly the |
| :--- |
| concepts, methocology, and sources used |
| in preparing data fer this report appear |
| in the appendix. See pages i-ix. |

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TABLE 1: Estimated Number of Wage and Salary Workers in Nonagricultural Establishments, by Industry Division
(In thousands)

| Industry division | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | July | June | May | July | June |
| TOTAL | 45,07 ${ }^{+}$ | 45,008 | 44,616 | 43,686 | 43,816 |
| Manufacturing | 16,155 | 16,113 | 15,892 | 15,580 | 15,672 |
| Mining | 922 | 950 | 935 | 890 | 919 |
| Contract construction | 2,217 | 2,173 | 2,052 | 2,043 | 1,957 |
| Transportation and public utilities | 4,135 | 4,105 | 4,042? | 4,15̣5 | 4,129 |
| Trade | 9,647 | 9,671 | 9,617 | 9,316 | 9,324 |
| Finance | 1,754 | 1,726 | 1,716 | 1,675 | 1,650 |
| Service | 4,645 | 4,063 | 4,738 | 4,686 | 4,711 |
| Govermment | 5,599 | 5,607 | 5,624 | 5,341 | 5,454 |

See explanatory notes, eections $A-H$, and the glossary for deifitions.

TABLE 2: Estimated Number of Wage and Salary Workers in Manufacturing Induatries, by Major Industry Group
(In thousende)

| Major industry group | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | JuIv | June | May | July | June |
| ALL MANUFACIURING | 16,155 | 16,113 | 15,892 | 15,580 | 15,672 |
| DURABIE GOODS | 8,145 | 8,121 | 8,114 | 7,874 | 8,050 |
| Iron and steel and their products | 1,895 | 1,904 | 1,894 | 1,854 | 1,871 |
| Electrical machinery | 713 | 724 | 727 | 742 | 759 |
| Machinery, except electrical | 1,561 | 1,579 | 1,568 | 1,519 | 1,558 |
| Transportation equipment, except automobiles | 556 | 562 | 565 | 527 | 594 |
| Automobiles | 984 | 918 | 964 | 94.1 | 939 |
| Nonferrous metals and their products | 456 | 468 | 467 | 462 | 475 |
| Lumber and timber basic products | 912 | 881 | 851 | 793 | 798 |
| Furniture and finished lumber products | 542 | 550 | 548 | 534 | 541 |
| Stone, clay, and glass products | 52.6 | 535 | 530 | 502 | 515 |
| NONDURABIEF GOODS | 8,010 | 7,992 | 7,778 | 7,706 | 7,622 |
| Textile-mill products and other fiber manufactures | 1,366 | 1,418 | 1,416 | 1,305 | 1,325 |
| Apparel and other finiched textile products | 1,235 | 1,263 | 1,247 | 1,141 | 1,141 |
| Leather and leather products | 422 | 419 | 404 | 417 | 414 |
| Food | 1,912 | 1,789 | 1,610 | 1,785 | 1,666 |
| Tobacco manufactures | 96 | 98 | 97 | 97 | 97 |
| Paper and allied products | 475 | 477 | 476 | 462 | 470 |
| Printing, publishing, and allied industries | 716 | 719 | 718 | 706 | 705 |
| Chemicels and allied products | 748 | 759 | 759 | 752 | 748 |
| Products of petroleum and coal | 245 | 245 | 242 | 237 | 235 |
| Rubber products | 238 | 243 | 243 | 250 | 257 |
| Miscellaneous industries | 557 | 562 | 566 | 554 | 564 |

See explanatory notes, sections, A-H, and the glossary for definitions.
4.

TABLI 3: Estimatod Number of Wage and Salary Workers in Selected Nonmanfacturing Industries, by Maior Induatry Group
(In thousand.s)

| Mojor industry group | 1418 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | July | Jume | May | July | June |
| MTNTNG | 92? | 950 | 935 | 890 | 919 |
| Anthracite | 81 | 82 | 81 | 79 | 80 |
| Bituminous coul | 395 | 206 | 423 | 379 | 409 |
| Metea | 103 | 104 | IAS | 101 | 103 |
| Quarrying and nonmetellic | 97 | 97 | 95 | 98 | 38 |
| Crude petroleus and natural ges production 1/ | 246 | 241 | 234 | 233 | 229 |
| trancpopmiation and public URILITIES | 4,135 | 4,103 | 4,042 | 4,155 | 4,129 |
| Transportation | 2,87? | 2,860 | 2,809 | 2,943 | 2,934 |
| Communication | 745 | $7{ }^{7}$ | . 731 | 721 | 712 |
| Other public utilities | 518 | 511 | 502 | 491 | 483 |
| GOVERNMENT | 5,599 | 5,607 | 5,624 | 5,341 | 5,454 |
| Federal | 1,833 | 1,804 | 1,788 | 1,828 | 1,886 |
| State and Local | 3,766 | 3,803 | 3,836 | 3,513 | 3,568 |

Soe axplenatory notos, sections, A-II, and the glossary for definjtions. If Includes woll drilling and rig building.

TABLE 4: Federal Civilian Employment and Pay Rolis in All Areas and in Continental United States, din Total Civilian Government Empioyment and Pay Rolls in Washington, D. C. 17
(In thousands)

| Area and branch | Empioyment fas of fret of montul. |  |  |  | $\begin{aligned} & \text { Pay rolis } \\ & \text { Eg for month) } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 120 |  |  | $2 \times 47$ | 1448 |  |  | 2947 |
|  | Jusy | June | \% 4 g | Jusy | Jüy | Jine | May | Juzy |
| Totas (inciuding arees outside limted states) | 2,084.3 | 2,053.9 | 2,038.9 | 2,103.2 | \$520.818 | \$502;235 | \$474,725 | $\begin{array}{r} \$ 494,351 \\ 484,811 \end{array}$ |
|  |  |  |  |  |  |  |  |  |
| total federal |  |  |  |  |  |  |  |  |
| Executive | 2,044.7 | 2,014.5 | 1,999.2 | 2,062.2 | 511,142 | 492;681 | 465.356 |  |
| Defense agancies | 919.8 | 926.9 | 909.9 | 936.5 | 224,853 | 222;329 | 205,912 | 213.772 |
| Post office Dapt. | 471.2 | 458.2 | 455.7 | 439.6 | 118,605 | 102,653 | 100.925 | 96,591 |
| Other agencies | 653.7 | 639.4 | 633.6 | 686.1 | 267.684 | 167.699 | 158:549 | . 174,448 |
| Legislative | 7.5 | 7.3 | 7.3 | 7.3 | 2,600 | 2.536 | - 2; 469 | 2,483 |
| Judicial | 3.5 | 3.5 | 3.5 | 3.1 | 1.301 | 1,279 | 1,207 | 1,329 |
| Qovernuent corporations | 28.8 | 28.6 | 28.9 | 30.6 | 5.775 | 5.739 | 5,693 | 5,728 |
| Continental |  |  |  |  |  |  |  |  |
| United Scates |  |  |  |  |  |  |  |  |
| TOTAL FEDERAL | 2,858.2 | 1,823.9 | 1,808.7 | 1,848.5 | 479.953 | 461,406 | 434,657 | 453.649 |
| Executive | 1,825.6 | 1.791.5 | 1,776.1 | 1;815.2 | 470,914 | 452,529 | 426,011 | 444,743 |
| Defense agencies | 732,2 | 724.7 | 727.1 | 718.5 | 192,514, | 189,974 | 17.4,209 | 180,976 |
| Post Office Dept; | 469.7 | 456.6 | 454.2 | 438.1 | 118,251, | 10,4,306 | 100,570 | 96,260 |
| Other agencies | 623.7 | 630.2 | 604.9 | 658.6 | 160.249 | 760.249 | 151,232 | 167,507 |
| Legislative | 7.3 | 7.3 | 7.3 | 7.3 | 2,600 | 2,536 | 2,469 | 2,483 |
| Judicial | 3.4 | 3.4 | 3.4 | 3.0 | 1,263 | 1,242 | 1,174 | 2,293 |
| Government corporations | 21.9 | 21.7 | 21.9 | 23.0 | 5,176 | 5.099 | 5,003 | 5,130 |
| Washington, D. C. |  |  |  |  |  |  |  |  |
| TOTAL GOVERAMENT | 233.1 | 229.3 | 228.9 | 231.1 | 65,748. | 66,658 | 63,492 | 64,577 |
| Distriet of Columbia | 19.1 | 18.6 | 18.7 | 28.4 | 3,477 | 4,561 | .4,422 | 3,381 |
| Federal | 224.0 | 210.7 | 210.2 | 212.7 | 62,271 | 62,097 | 59.070 | 61,196 |
| Executive | 206.1 | 202.8 | 202.3 | 204.8 | 59,455 | 59.350 | 56,400 | 58,503 |
| Defense agencies | 69.0 | 67.6 | 67.2 | 67.9 | 19,548 | 19,250 | 18,045. | 18,536 |
| Post office Dept. | 7.5 | 7.4 | 7.4 | 7.1 | 2,298 | 2,300 | 2,234 | 2,297 |
| Other agencies | 229.6 | 127.8 | 227.7 | 129.8 | 37,609 | 37,800 | 36,121 | 37,670 |
| Legislative | 7.3 | 7.3 | 7.3 | 7.3 | 2.600 | 2.536 | 2,469 | 2,483 |
| Judicial | .6 | . 6 | .6 | . 6 | 216 | 211 | 201 | 210 |

See the glossary for definitions.

1/Data for Central Intelligence Agency are excluded starting August 1947 for employment and July 1947 for pay rolls.

TABLE 5: Personnel and Pay of the Military Branch of the Federal Government 1/
(In thousands)


See the glossary for definitions.
1/ Because of rounding, the individual figures do not necessarily add to group totals.
2) Air Force personnel, 375,000 in May, 384,000 in June, and 388,000 in July, 1948.

TABLE 6: Estinated Number of Wage and Salary Workers in Nonagricultural Establishments for Selected States
(In thousands)

| State | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | June | May | April | June | May |
| Connecticut | 765 | 767 | . 772 | 769 | 770 |
| Iminois | 3,174 | 3,126 | 3,110 | 3,122 | 3,104 |
| Indiana | 1,209 | 1,157 | 1,1'79 | 1,193 | 1, 184 |
| Maine | 270 | 259 | 253 | 257 | 252 |
| Maryland | 707 | 698 | 686 | 665 | 671. |
| Massachugetts | 1,730 | 1,720 | 1,701 | 1,696 | 1,691 |
| Minnesota | 803 | 782 | 767 | 770 | 760 |
| Montana | 138 | 136 | 135 | 135 | 133 |
| Nevada 1/ | 49 | 48 | 48 | 49 | * 48 |
| New Jersey | 1,593 | 1,576 | 1,568 | 1,507 | 1,532 |
| New York | 5,416 | 5,385 | 5,380 | 5,381 | 5,387 |
| Pennsylvania | 3,606 | 3,577 | 3,520 | 3,530 | 3,500 |
| Rhode Islena | 288 | 287 | 288 | 285 | 284 |
| Texas | 1,720 | 1,693 | 1,685 | 1,643 | *1,613 |
| Utah | 172 | 174 | 166 | 169 | 171 |
| Vermont 1/ | 96 | 94 | 94 | 95 | 94 |
| - Washington | 655 | 64.1 | 659 | 664 | 657 |
| Wisconejn | 993 | 977 | 973 | 266 | 953 |

See explanatory notee, sections H and I.
1/ Does not include contract construction.

* Revised.

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TABLE 7: Estimated Number of Wage and Salary Workers in Manuracturing Industries, by State
(In thousands)

| Region and State | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | June | May | April | June | May |
| NEW ENGLAND: |  |  |  |  |  |
| Maine 1/ | 115.2 | 108.2 | 106.7 | 108.2 | 106.8 |
| New Eampshire | 8こ. 7 | 81.6 | 82.6 | 79.3 | 78.7 |
| Vermont 1/ | 37.8 | 37.8 | 38.1 | 38.4 | 38.7 |
| Massachusetts | 725.5 | 723.4 | 729.7 | 724.7 | $734 \cdot 3$ |
| Rhocie Island | 146.5 | 147.0 | 149.9 | 147.0 | 147.7 |
| Connecticut 1/ | 396.5 | 401.1 | 406.4 | 420.4 | 415.0 |
| MIDDITS ATLANTIC: |  |  |  |  |  |
| New York | 1,831.7 | 1,829.0 | 1,850.4 | 1, 841.6 | 1,858.0 |
| New Jersey | 742.3 | 740.7 | 746.0 | 745.2 | 727.0 |
| Fenneylvania | 1,492.0 | 1,48\%.1 | 1,495.3 | 1,487.2 | *1,494.8 |
| EAST NORTI CENTRAL: |  |  |  |  |  |
| Ohio | 1,928.2 | 1.222.3 | 1,230.7 | 1, 24.4 .5 | 1,238.7 |
| Indiana | 546.4 | 541.9 | 540.0 | * 553.6 | 550.1 |
| Illinois | 1,2e8.7 | 1,203.5 | 1,198.0 | 1,238.3 | 1,232.0 |
| Michigan | 962.7 | 998.5 | 1,002. 7 | 1,013.1 | 980.3 |
| Wisconsin I/ | 420.7 | 420.0 | 426.3 | 427.9 | 423.5 |
| WEST NORTP CENITRAL: |  |  |  |  |  |
| Minnesota I/ | 203.3 | 190.9 | 188.7 | 194.5 | 193.5 |
| Iowa 1/ | 149.8 | 135.1 | 133.8 | 148.6 | 146.7 |
| Miseouri $1 /$ | 343.9 | 339.3 | 339.9 | 345.4 | 347.1 |
| North Dekota | 7.1 | 6.7 | 6.4 | * 6.8 | 6.7 |
| South Dalrota | 11.9 | 11.3 | 11.3 | 11.5 | 11.3 |
| Nebreska | 43.0 | 36.1 | 34.9 | 43.1 | 42.5 |
| Kansas | 84.5 | 77.0 | '73.3 | 81.0 | 79.5 |
| SOUTH ATLANTIC: |  |  |  |  |  |
| Delaware | 46.5 | 45.7 | 46.5 | 45:4 | * 45,7 |
| Maryland | 229.4 | 220.5 | 228.2 | 224.3 | 228.9 |
| District of Columbia | 17.1 | 17.2 | 17.4 | 17.2. | 17.1 |
| Virginia | 211.9 | 210.8 | 212.8 | 207.9 | 209.4 |
| West Virginia | 133.9 | 132.4 | 131.9 | 132.6 | 131.5 |
| North Carolina | 381.7 | 381.4 | 382.6 | 366.0 | 366.4 |
| South Caroline | 200.5 | 199.3 | 199.3 | 188.9 | 188.7 |
| Georgia | 252.7 | 252.0 | 252.4 | 246.2 | 249.7 |
| Floridal/ | 90.0 | 93.2 | 96.5 | 88.2 | 88.9 |

TABIE 7: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by State - Continued
(In thousands)

| Region and State | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | June | May | April | \$ June | May |
| EAST SOUTH CENTIRAL: |  |  |  |  |  |
| Kentucky | 127.0 | 125.9 | 128.2 | 123.6 | 123.9 |
| Tennessee | 250.7 | 250.8 | 251:5 | 245.2 | 245.7 |
| Alabama 1/ | 228.3 | 228.0 | 227.3 | 221.1 | 22.2 .8 |
| Mississippi | 89.5 | 88.1 | 88.6 | 90.9. | 88.5 |
| WEST SOUTH CENTRAL: |  |  |  |  |  |
| Arkansas 1/ | 76.6 | 75.1 | 74.8 | 74.2 | 74.7 |
| Louiciana | 139.6 | 137.8 | 138.3 | 138.6 | 136.6 |
| Oklahoma 1/ | 68.9 | 65.2 | 65.5 | . 62.6 | 61.4 |
| Texas | 354.8 | 347.7 | 338.7 | 339.3 | 324.8 |
| MOUPTAIN: |  |  |  |  |  |
| Montana | 17.7 | 17.1 | 17.1 | 17.8 | 17.1 |
| Idaho | 29.8 | 18.7 | 17.9 | 20.1 | 19.2 |
| Wyoming | 6.8 | 6.5 | 6.3 | 6.3 | 6.1 |
| Colorado | 56.3 | 53.3 | 54.0 | 54.6 | 53.8 |
| New Mexicol/ | 10.0 | 9.3 | 8.8 | 9.1 | 9.1 |
| Arizona I/ | 16,0 | 15.7 | 15.3 | 14.8 | 14.6 |
| Utah | 5.8 | 24.2 | 22.6 | 24.9 | 24.1 |
| Nevada 1/ | 3.4 | 3.3 | $3 \cdot 3$ | 3.3 | 3.3 |
| PACIEJC: |  |  |  |  |  |
| Washington | 163.4 | 152.4 | 175.3 | 179.3 | 174.9 |
| Oregon | 112.8 | 110.7 | 110.2 | 119.1 | 117.1 |
| California | 712.9 | 696.3 | 695.8 | 689.3 | 693.0 |

See explanatory notes, sections H and I.
1/ Series based on Standard Industrial Clessification. Data for Iowa, Minnesota; Missouri, and Oklahoma may not be strictly comparable with those published prior to the current report.

* Revised. .

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TABLE 8: Estimated Number of Production Workers in Manufacturing Industries
(In thousands)

| Industry group and industry | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | July | June | May | July | June |
| ALL MANUFACTURING | 12,973 | 12,954 | 12,738 | 12,562 | 12,672 |
| DURABLE GOODS | 6,667 | 6,658 | 6,642 | 6,452 | 6,639 |
| NONDURABLE GOODS | 6,306 | 6,296 | 6,096 | 6,110 | 6,033 |
| Durable goods |  |  |  |  |  |
| IRON AND STEEL AND THEIR PRODUCTS | 1,601 | 1,610 | 1,600 | 1,569 | 1,588 |
| Blast furnaces, steel works, and rolling mills | 526.5 | 523.0 | 517.7 | 503.0 | 501.2 |
| Gray-iron and semisteel castings | 104.7 | 108.8 | 107.1 | 113.0 | 115.0 |
| Malleable-iron castings | 36.1 | $37 \cdot 9$ | 37.3 | 33.7 | 35.6 |
| Steel castings | 68:2 | 69.6 | 68.4 | 64.0 | 65.4 |
| Cast-iron pipe and fittings | 28.6 | 28.9 | 28.4 | 27.1 | 27.4 |
| Tin cans and other tinware | 47.4 | 44.7 | 42.8 | 44.3 | 42.7 |
| Wire drawn from purchased rods | 28.0 | 28.7 | 29.4 | 30.6 | 31.0 |
| Wirework | 41.8 | 40.2 | 41.1 | 39.0 | 39.9 |
| Cutlery and edge tools | 21.8 | 22.1 | 23.1 | 21.5 | 23.5 |
| Tools (except edge tools, machine tools, files, and saws) | 24.6 | 25.1 | 25.2 | 23.9 | 25.4 |
| Hardware | 49.3 | 49.8 | 51.9 | 49.1 | 49.9 |
| Plumbers' supplies | 38:8 | 40.3 | 39.3 | 38.3 | 39.0 |
| Stoves, oil burners, and heating equipment, not elsewhere classified | 78.7 | 78.7 | 79.5 | 82.7 | 84.3 |
| Steam and hot-water heating apparatus and steam fittings | 57.0 | 60.5 | 60.8 | 60.3 | 64.0 |
| Stamped and enameled ware and galvanizing | 110.1 | 111.0 | 110.9 | 109.2 | 110.9 |
| Fabricated structural and ornamental metalwork | 59.3 | 59.6 | 60.0 | 59.1 | 59.2 |
| Metal doors, sash, frames, molding, and trim | 10.4 | 10.4 | 10.2 | 9.6 | 9.4 |
| Bolts, nuts, washers, and rivets | 28.1 | 28.5 | 28.6 | 27.7 | 28.5 |
| Forgings, iron and steel | 35.1 | 34.9 | 35.1 | 35.9 | 36.5 |
| Wrought pipe, welded and heavyriveted | 19.8 | 20.1 | 18.8 | 17.3 | 17.1 |
| Screw-machine products and wood screws | 35.2 | 35.9 | 36.4 | 36.0 | 37.3 |
| Steel barrels, kegs, and drums | 7.9 | 7.9 | 7.6 | 8.4 | 8.2 |
| Firearms | 21.5 | 21.4 | 21.2 | 19.3 | 19.0 |
| BLECTRICAL MACHINERY | 535 | 546 | 548 | 567 | 584 |
| Electrical equipment | 351.4 | 356.7 | 357.4 | 368.8 | 378.3 |
| Radios and phonographs | 85.8 | 88.9 | 90.0 | 93.3 | 98.3 |
| Communication equipment | 86.9 | 90.2 | 90,0 | 94.0 | 97.3 |

See explanatory notes, sections. C, D, and G, and the glossary for definitions.
(In thousands)

| Industry groun and industry | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | JuIy | June | May | July | June |
| MACHINERY, EXCEPY EIECTIRICAL | 1,199 | 1,217 | 1,207 | 1,171 | 1,208 |
| Machinery and machine-shop products | 487.5 | 493.2 | 489.6 | 490.8 | 501.3 |
| Engines and turbines | 52.3 | 52.1 | 53.5 | 53.1 | 53.1 |
| Tractoss | 60.0 | 60.4 | 56.3 | 56.8 | 57.0 |
| Agricu-tural machinery, excluding tractors | 74.8 | 76.3 | 75.2 | 64.4 | 67.5 |
| Machine tools | 46.8 | 47.0 | 47.5 | 50.6 | 53.9 |
| Machine-tool accessories | 51.0 | 55.4 | 55.4 | 55.4 | 59.1 |
| Textile machinery | 41.3 | 42.0 | 41.6 | 36.4 | 39.0 |
| Pumps and pumping equipment | 66.3 | 67.7 | 69.3 | 74.1 | 77.0 |
| Typewriters | 22.8 | 23.7 | 23.8 | 14.5 | 18.3 |
| Cash registers; adaing, and calculating machines | 45.2 | 45.8 | 45.6 | 37.9 | 38.1 |
| Washing machines, wringers, and -driers, domestic | 15.6 | 16.4 | 16,0 | 14.6 | 15.0 |
| Sewing machines, domestic and industrial | 14.1 | 14.0 | 13.9 | 12.0 | 10.8 |
| Refrigerators and refrigeration equipment | 84.2 | 84.8 | 82.5 | 77.2 | 78.9 |
| TRANSPORTAITION EQUTPMENT, EXCEFT AUTOMOBILES | 430 | 434 | 438 | 403 | 472 |
| Locomotives | 26.4 | 26.3 | 26.4 | 23.8 | 24.3 |
| Cars, electric- and steam-reilroad | 54.5 | 55.0 | 53.9 | 55.1 | 54.9 |
| Aircraft and parts, excluäing aircraft engines | 130.3 | 127.6 | 125.1 | 129.3 | 133.9 |
| Aircrait engines | 25.6 | 25.9 | 25.1 | 26.8 | 26.9 |
| Shipbuilding and boetbuilding | 103.7 | 108.9 | 116.1 | 87.9 | 140.4 |
| Motorcycles, bicycles, and parts | 10.8 | 12.4 | 12.9 | 13.0 | 13.3 |
| AUTOMOBILES | 784 | 737 | 767 | 753 | 758 |
| NONFERROUS METALS AND THETR PRODUCTS | 388 | 398 | 398 | 393 | 408 |
| Smelting and refining, primary, of nonferrous metals | 41.9 | 41.9 | 41.4 | 40.8 | 40.4 |
| Alloying; and rolling and drawing of nonferrous metals, except aluminum | 51.8 | + 52.5 | 52.6 | 54.3 | 57.6 |
| Glocks and watches | 25.9 | 28.3 | 28.3 | 24.8 | 27.5 |
| Jewelry (precious metale) and jewelers' findings | 25.7 | 26.3 | 26.4 | 24.7 | 25.3 |
| Silverware and plated ware | 26.4 | 27.3 | 27.2 | 23.7 | 24.3 |
| Lighting equipment | 30.2 | 30.8 | 30.4 | 36.4 | 37.0 |
| Aluminum manufactures | $39: 0$ | 42.2 | 42.7 | 40.0 | 43.6 |
| Sheet-metal work, not elsewhere classified | 35.5 | 34.9 | 35.2 | 37.6 | 38.6 |

See explanatiory notes, sections $C, D$, and $G$, and the glossary for definitions.

TABIE 8: Estimated Number of Production Workers in Manufacturing Industries - Cont'd (In thousands)

| Industry group and industry | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | July | June | May | July | June |
| LUMBER AND TTMBER BASIC PRODUCTS 1/ | 828 | 799 | 772 | 721 | 727 |
| Sawmills and logging camps | 680.0 | 653.1 | 627.7 | 589.9 | 593.3 |
| Planing and plywoot mille | 147.7 | 145.8 | 144.0 | 130.9 | 133.5 |
| FURNITURE• AND FINISEED LUMBER PRODUCTS | 452 | 4.59 | 458 | 445 | 452 |
| Mattresses and bedsprings | 31.0 | 31.2 | 31.2 | 28.5 | 29.9 |
| Furniture | 228.1 | 231.7 | 233.3 | 223.9 | 227.0 |
| Wooden boxes, other than cigar | 33.2 | 33.2 | 32.5 | 35.2 | 36.2 |
| Caskets and other morticians' goods | 17.6 | 18.1 | 18.6 | 19.1 | 19.2 |
| Wood preserving | 26.1 | 15.7 | 15.4 | 18.8 | 18.6 |
| Wood, turned and shaped | 31.6 | 33.1 | 32.1 | 30.2 | 30.2 |
| STONE, CEAY, AND GLASS PRODUCTS | 450 | 458 | 454 | 430 | 442 |
| Glass and glassware | 111.0 | 116.5 | 117.5 | 113.1 | 120.3 |
| Glass products made from purchased glass | 12.4 | 12.3 | 12.2 | 12.4 | 12.6 |
| C'ment | 38.1 | 37.6 | 37.1 | 35.7 | 35.3 |
| Brick, tile, and terpa cotta | 79.8 | 80.1 | 77.7 | 73.3 | 73.0 |
| Pottery and related products | 55,6 | 57.6 | 57.1 | 54.3 | 55.5 |
| Gypsum | 6.7 | 6.6 | 6.5 | 6.1 | 6.0 |
| Wallboard, plaster (except gypsum), and mineral wool | 12.7 | 12.6 | 12.6 | 11.5 | 11.2 |
| Lime | 9.4 | 9.3 | 9.5 | 9.3 | 9.3 |
| Marble, granite, slate, and other products | 18.6 | 18.4 | 18.1 | 16.8 | 16.5 |
| Abrasives | 18.3 | 17.8 | 17.5 | 17.0 | 18.7 |
| Asbertos products | 20.8 | 21.6 | 21.8 | 19.5 | 20.7 |
| Nondurable poods |  |  |  |  |  |
| TEXITIE-MILLL PRODUCTS AND OTHER FIBER MANUFACTURES | 1,243 | 1,295 | 1,293 | 1,187 | 1,208 |
| Cotton manufactures, except smallwares | 508.9 | 527.7 | 524.7 | 492.6 | 501.7 |
| Cotton smallwares | 13.4 | 14.0 | 14.4 | 13.1 | 13.7 |
| Silk and rayon goods | 108.2 | 112.6 | 111.8 | 99.9 | 101.7 |
| Woolen and worsted manufactures, except dyeing and finishing | 167.2 | 173.8 | 173.2 | 158.1. | 162.9 |
| Hosiery | 125.6 | 135.3 | 136.6 | 125.9 | 124.4 |
| Knitted cloth | 11.1 | 11.2 | 11.5 | 10.3 | 10.5 |
| Knitted outerwear and knitted gloves | 28.1 | 30.8 | 31.4 | 27.0 | 28.0. |
| Knitted underveas | 46.6 | 48.1 | 48.6 | 43.6 | 43.8 |
| Dyeing and finishing textiles, including woolen and worsted | 84.5 | 86.5 | 87.5 | 80.2 | 83.4 |
| Carpets and "rugs, wool' | 37.1 | 37.2 | 36.9 | 31.9 | 31.9 |
| Hats, fur-felt | 12.3 | 13.4 | 12.9 | 12.8 | 13.1 |
| Jute goods, except felts | 4.3 | 4.3 | 4.2 | 4.1 | 4.2 |
| Cordage and twine | 15.8 | 16.2 | 16.4 | 14.8 | 15:5. |

See explanatory notes, sections C, D, and G, and the glossary for definitions.

TABIEE 8: Estimated Number of Production Workers in Manufacturing Industries - Cont'd
(In thousands)

| Industry group and industry | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | July | June | May | July | June |
| APPAREI AND ORHER FINISHED TEXTIIIE PRODUCTS | 1,070 | 1,095 | 1,082 | 992 | 993 |
| Men's clothing, not elsewhere classified | 296.5 | 314.4 | 309.8 | 278.2 | 284.5 |
| Shirts, collars, and nightwear | 75.8 | 80.0 | 80.9 | 71.7 | 74.3 |
| Underwear and neckwear, men's | 16.7 | 18.2 | 18.4 | 15.4 | 16.7 |
| Work shirts | 18.5 | 18.6 | 18.2 | 14.0 | 14.4 |
| Women's clothing, not elsewhere classified | 437.0 | 435.4 | 427.6 | 400.2 | 389.1 |
| Corsets and allied garments | 17.0 | 18.1 | 18.5 | 16.9 | 17.7 |
| Millinery | 22.4 | 20.3 | 20.5 | 20.5 | 20.2 |
| Handkerchiefs | 3.9 | 4.9 | 5.0 | 4.2 | 4.6 |
| Curtains, draperies, and bedepreads | 25.1 | 26.4 | 26.4 | 23.2 | 22.5 |
| Housefurnishings, other than curtains, etc. | 28.2 | 27.9 | 27.7 | 26.6 | 28.6 |
| Textile bags | 28.2 | 27.3 | 26.8 | 26.9 | 27.1 |
| LEATHER AND LEATHER PRODUCTS 1/ | 376 | 373 | 359 | 373 | 370 |
| Leather | 47.2 | 47.9 | 47.5 | 48.4 | 48.5 |
| Boot and shoe cut stock and findings | 17.7 | 17.8 | 17.3 | 18.8 | 18.0 |
| Boots and shoes | 240.2 | 236.6 | 225.5 | 237.8 | 235.1 |
| Leather gloves and mittens | 12.8 | 12.9 | 12.4 | 11.9 | 12.1 |
| Trunks and suitcases | 13.3 | 13.3 | 13.2 | 11.7 | 12.2 |
| FOOD | 1,367 | 1,259 | 1,091 | 1,311 | 1,192 |
| Slaughtering and meat packing | 190.3 | 188.9 | 116.2 | 182.3 | 176.4 |
| Butter | 39.3 | 40.5 | 39.2 | 38.8 | 38.4 |
| Condensed and evaporated milk | 22.4 | 23.0 | 21.6 | 23.5 | 23.5 |
| Ice cream | 32.6 | 31.6 | 29.2 | 33.4 | 33.1 |
| Flour | 39.8 | 38.6 | 37.3 | 39.4 | 37.9 |
| Feeds, prepared | 29.1 | 28.7 | 27.9 | 29.6 | 29.0 |
| Cereal preparations | 13.8 | 13.0 | 12.8 | 13.1 | 12.2 |
| Baking | 226.3 | 224.6 | 219.7 | 216.6 | 213.2 |
| Sugar refining, cane | 21.3 | 18.3 | 17.7 | 20.8 | 20.4 |
| Sugar, beet | 7.2 | 7.0 | 6.3 | 8.1 | 7.1 |
| Confectionery | 56.4 | 57.3 | 56.0 | 57.9 | 60.2 |
| Beverages, nonalcoholic | 44.6 | 41.0 | 38.5 | 35.5 | 32.2 |
| Malt liquors | 79.3 | 74.8 | 66.3 | 74.0 | 70.6 |
| Canning and preserving | 246.2 | 167.9 | 137.8 | 246.2 | 155.3 |
| TOBACCO MANUFACTURES 1/ | 83 | 85 | 84 | 84 | 84 |
| Cigarettes | 33.6 | 33.3 | 33.1 | 32.9 | 33.3 |
| Cigars | 41.7 | 43.6 | 43.7 | 43.0 | 43.1 |
| Tobacco (chewing and smoking) and snuff | 7.6 | 7.7 | 7.6 | 7.8 | 7.7 |

See explenatory notes, sections C, D, and G, and the glossary for definitions.
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TABIE 8: Estimatod Number of Production Workers in Mancfacturing Industries - Cont'd (In thonaanis)

| Industry group and indusitry | $19+8$ |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | July | June | May | Juiy | June |
| PTPTR MND AITITD PRODUCTS $1 /$ | 1383 | 390 | 339 | 380 | 388 |
| Peper and pulp | 206.0 | 204.2 | 204.7 | 197.3 | 197.9 |
| Eapor gooda, other | 60.5 | 61.7 | 61.5 | 60.2 | 61.7 |
| minclepu | 12.3 | 12.5 | 12.7 | 11.6 | 11.9 |
| Peper bars | 17.4. | 27.5 | 17.5 | 17.8 | 18.2 |
| Fpmar boxeo | 90.9 | 92.8 | 91.4 | 92.6 | 97.0 |
| primiting, publisiemig, and audid mevermites | 430 | 433 | 432 | 430 | 431 |
| Newspepers and periodicals | 1246.8 | 126.9 | 146.1 | 142.2 | 142.0 |
| Printing; book and jow | 183.0 | 134.: | 134.2 | 184.3 | 183.7 |
| Lithographing | 31.2 | 31.1 | 30.9 | 31.5 | 32.4 |
| Bookbinding | 33.4 | 35.1 | 35.1 | 37.0 | 37.5 |
| CHPMICALS AND ALITEi FRODUCUS | 564 | 576 | 572 | 562 | 561 |
| Painte, varnishee, and colors | 51.1 | 51.2 | 50.7 | 48.6 | 50.0 |
| Druge, medicines, and insecticides | 62.9 | 63.5 | 63.6 | 66.7 | 67.8 |
| Perfumes und cosmetics | 10.9 | 10.9 | 11.0 | 11.7 | 12.0 |
| Soap | 22.3 | 22.0 | 21.7 | 24.0 | 24.3 |
| Rayon and alliea products | 64.2 | 6.62 | 63.4 | 61.0 | 52.5 |
| Chemicals, not alsewhere cloestria | 192.8 | 198.2 | 195.6 | :197.7 | 198.8 |
| Txplosiver and sanoty fuses | 23.7 | 23.1 | 22.2 | 19.6 | 22.2 |
| Compressea and liqueficd geses | 10.0 | 10.1 | 10.0 | 9.8 | 9.9 |
| irmunition, amail-arms | 7.7 | 7.8 | 7.8 | 6.9 | 7.1 |
| Fireworks | 2.2 | 2.5 | 2.6 | 2.4 | 2.9 |
| Cottonsued oll | 12.5 | 12.6 | 13.6 | 11.6 | 11.9 |
| Frisilzors | 23.2 | 24.3 | 29.4 | 23.8 | 25.0 |
| PRODUCTS OF PMTROLIMM AND COAL $1 /$ | 170 | 170 | 157 | 165 | 163 |
| Potrcleum rosining | 1217.0 | 126.6 | 114.7 | 114.3 | 112.4 |
| Coke and byproducta | 31.9 | 31.7 | 31.1 | 29.0 | 28.8 |
| Piving maverials | 2.7 | 2.7 | 2.4 | 2.8 | 2.6 |
| Rooing materials | 17.4 | 17.7 | 17.3 | 18.2 | 17.7 |

Sec explanetory notas, cections C, D, and G, ant the zlossary for definitions.

TABIEF 8: Estimated Number of Production Workers in Manufacturing Induetries - Cont'd (In thousands)

| Industry group and industry | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | July | June | May | Ju]y | Jmae |
| RUBBER PRODUCTS I/ | 190 | 195 | 195 | 200 | 207 |
| Rubber tires and inner tubes | 90.9 | 91.9 | 91.4 | 102.9 | 105,8 |
| Rubber boots and shoes | 20.7 | 21.8 | 21.7 | 20.1 | 21.4 |
| Rubber goods, other | 78.9 | 81.7 | 81.7 | 76.8 | 79.5 |
| MISCELLANEOUS INDUSTRIES | 425 | 429 | 432 | 426 | 436 |
| Instruments (professional and scientific), and fire-control equipment | 27.8 | 27.5 | 27.5 | 27.5 | 28.1 |
| Photographic apparatus | 38.8 | 38.1 | 37.8 | 38.3 | 37.4 |
| Optical instruments and ophthalmic goods | 23.8 | 25.5 | 26.7 | 27.9 | 28.9 |
| Pianos, organs, and parts. | 12.7 | 13.5 | 13.7 | 14.9 | 15.2 |
| Games, toys, and dolls | 41.7 | 40.9 | 40.2 | 36.1 | 34.8 |
| Buttons | 12.5 | 12.9 | 12.8 | 10.7 | 11.8 |
| Fire extinguishers | 2.8 | 2.7 | 2.7 | 2.9 | 2.9 |

See explanatory notes, sections C, D, and G, and the glossary for definitions. I/ Estimates for the individual industries comprising the major industry groups have been adjusted to levels indicated by Federal Security Agency data through 1946 and have been carried forward from 1946 bench-mark levels, thereby providing consistent series. Comparable data from January 1939 are available upon request to the Bureau of Labor Statistics. Such requests should specify the series desirad.

Data for the individual industries comprising the major industry groups listed below supersede deta shown in publications dated prior to:

| Major Industry group | : Mimeographed release | : Monthly Labor Review |
| :--- | :--- | :--- |
| Tobacco manufactures | July 1948 |  |
| Lumber and timber basic products | September 1948 | August 1948 |
| Leather and leather products | September 1948 | October 1948 |
| Paper and allied products | September 1948 | October 1948 |
| Printing, publishing, and allied |  |  |
| Industries | September 1948 |  |
| Products of petroleum and coal | September 1948 | October 1948 |
| Rubber products | September 1948 | October 1948 |
|  |  | October 1948 |

16. 

TABIE 9: Estimated Number of Employees in Selected Nonmanufacturing Industries 1/ (In thousands)

| Industry group end industry | 1948 |  |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | J3i ${ }^{2}$ | June | May | Ju].y | June |
| MINING: $2 /$ |  |  |  |  |  |
| Coel: |  |  |  |  |  |
| Anthracite | 76.1 | 77.4 | 76.4 | 74.2 | 75.7 |
| Bituminous coal | 378 | 407 | 1405 | 363 | 392 |
| Metal | 91.7 | 92.8 | 91.4 | 90.6 | 91.9 |
| Iron | 33.7 | 33.7 | 32.7 | 32,6 | 32.4 |
| Copper | 26.6 | 26.7 | 26.5 | 25.7 | 25.7 |
| Lead and zinc | 15.1 | 16.3 | 16.4 | 16.3 | 17.8 |
| Gold and silver | 8.3 | 8.3 | 8.1 | 8.1 | 8.0 |
| Miscellaneous | .8.0 | 7.9 | 7.7 | 7.9 | 7.9 |
| Quarrying and nonmetallic | 86.3 | 86.8 | 85.1 | 88.6 | 88.3 |
| Crude' petroleum and natural ges production 3/ | 136.9 | 133.5 | 128.7 | 130.8 | 128.5 |
| TRANSPORTATION AND PIBLIC THITITTIES |  |  |  |  |  |
| Class I steam railroadis 4/ | 1, 362 | 1,35? | 1,321 | 1,383 | 1,375 |
| Street railways and busses 5/ | 246 | 249 | 249 | 254 | 253 |
| Telephone | 643 | 633 | 630 | 614 | 605 |
| Telegraph 6/ | 36.0 | 36.1 | 36.3 | 38.2 | 38.5 |
| Electric light and power | 283 | 279 | 274 | 267 | 263 |
| SERVICE: |  |  |  |  |  |
| Hotels (year-round) |  |  |  | 382 | 385 |
| Power laundries $2 / 1$ | 239 | 233 | 233 | 250 | 249 |
| Cleaning and dyeing 2/ | 92.6 | 94.7 | 93.4 | 97.7 | 100.8 |

See explanatory notes, sections $C, D$, and $G$, and the glossary for definitions.
1/ Unlese otherwise noted, includes all nonsupexvisory employees and working supervisors.
2/ Includes production and related workers only.
3/ Does not include well drilling or rig builäing.
4/. Includes all employees at midale of month. Facludes employees of awitching and terminal companies. Class I steam railroads Include those with over $\$ 1,000,000$ annual revenue. Source: Interstate Commerce Commission.
5/ Includes private and municipal street-railway companies and affiliated, subsidiary; or successor trolley-bus and motor-bue companies.
6/ Includes all lend-line employees except those compensated on a commisaion basis. Excludes general and divisional headquarters personncl, trainces in school, and messengers.

| Industry group and inductry | Employment indexes |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 |  | 1947 | 1948 |  |  | 1947 |
|  | July | June May | July | July | June: | May | July |
| ALI MANUFACTURING | 158.4 | 158.1155 .5 | 153.3 | 360.1 | 359.0 | 346.7 | 321.8 |
| DURABIE GOODS | 184.6 | 184.4183 .9 | 178.7 | 403.1 | 401.3 | 390.8 | 359.4 |
| NONDURABLE GOODS | 137.7 | 137.4133 .1 | 133.4 | 318.1 | 317.7 | 303.6 | 285.1 |
| Durable goods |  |  |  |  |  |  |  |
| IRON AND STEEL AND THEIR PRODUCTS | 161.4 | 162.4161 .4 | 158.2 | 336.9 | 340.5 | 334.4 | 307.2 |
| Blast furnaces, steel works, and rolling mills |  |  |  |  |  |  |  |
| Gray-iron and senisteel castings | 168.3 | 174.8172 .2 | 181.7 | 377.8 | 400.1 | 374.3 | 396.3 |
| Melleable-iron castings | 188.0 | 197.0194 .2 | 175.5 | 4.48 .8 | 468.1 | 460.3 | 397.2 |
| Steel castings | 212.6 | 217.1213 .6 | 199.8 | 440.5 | 469.5 | 454.2 | 338.7 |
| Cast-iron pipe and ifttings | 162.6 | 164.5161 .6 | 154.0 | 411.6 | 422.0 | 401.4 | 365.6 |
| Tin cans and other tinware | 149.2 | 140.8134 .9 | 139.4 | 353.8 | 310.8 | 286.1 | 297.6 |
| Wire drawn from purchased rode | 127.5 | 130.7134 .0 | 139.1 | 242.8 | 243.3 | 249.8 | 240.4 |
| Wi.rework | 137.6 | 132.4135 .2 | 128.4 | 315.1 | 295.7 | 298.2 | 264.0 |
| Cutlery and edge tools | 141.2 | 14.3 .6149 .9 | 139.8 | 335.7 | 343.6 | 357.8 | 314.2 |
| Tools (except edge tools, machine tools, files, and saws) | 160.8 | 163.9164 .7 | 156.0 | 350.7 | 370.8 | 366.6 | 318.1 |
| Hardware | 138.3 | 139.7145 .5 | 137.6 | 303.8 | 318.6 | 325.8 | 300.2 |
| Plumbers " supplies | 147.8 | 153.7149 .8 | 146.0 | 316.7 | 329.0 | 324.0 | 291.4 |
| Stoves, oil burners, and heating equipment, not elsewhore classified | 160.2 | 160.2161 .7 | 168.2 | 359.1 | 359. | 352.5 | 346.6 |
| Steam and hot-water heating apparatus and steam fittings |  | 187.4188 .2 | 186.8 |  |  | 406.0 |  |
| Stamped and enameled ware and galvanizing |  | 187.6187 .4 | 186.8 |  |  | 406.0 | 373.8 |
| Fabricałed. structüral and ornameitel metalwork | 167.1 | 167.9169 .0 | 166.4 | 329.0 | 345.2 | 345.7 | 320.1 |
| Metal doors, sesh, frames, molding, and trim | 134.2 | 133.7131 .4 | 123.8 | 292.9 | 309.1 | 288.6 | 320.1 244.5 |
| Bolts, nuts, washers, and rivets | 184.5 | 187.3187 .8 | 182.1 | 401.0 | 412.8 | 408.2 | 355.1 |
| Forginge, from and steel | 214.5 | 213.3214 .2 | 219.0 | 449.6 | 454.1 | 443.7 | 427.2 |
| Wrought pipe, welded and heavy-riveted | 222 | 225.1 .211 .0 | 193.8 | 473.0 | 467.3 | 443.1 | 307.8 |
| Screw-machine products end wood screws | 195.3 | 199.1202 .1 | 199.6 | 426.8 | 436 | 5.4 | 414.5 |
| Steel barrels, kegs, and drums | 122.4 | 121.7117 .7 | 129.1 | 301.4 | 313.3 | 302.6 | 317.2 |
| Firearms. | 403.0 | 402.6 397.9 | 362.2 | 952.7 | 945.9 | 215.6 | 776.8 |
| ETECIRICAL MACHINERY | 206.4 | 210.8211 .6 | 218.9 | 436.5 | 439.6 | 431.6 | 430.0 |
| Electrical equipment | 192.4 | 195.3195 .7 | 201.9 | 405.7 | 406.7 | 398.1 | 396.3 |
| Radios and phonographs | 195.0 | 202.0204 .6 | 212.1 | 456.2 | 458.0 | 451.4 | 460.8 |
| Communication equipment | 267.7 | 277.8 277.3 | 289.5 | 517.8 | 534.2 | 530.0 | 521.3 |

See explanatory notes, sections C, F, and G, and the glossery for definitions.
18.

TABIF 10: Indexes of Production-Worker Employment and Weekly Pay Rolls in Manufacturing Industries - Continued

| Industry group and industry | Employment indeses |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 148 |  | 1947 |  | 1948 |  | 1947 |
|  | Jin | Juno | May | July | July | June | May | July |
| MACHINERY, EXCEPY EIECTRICAI | 226.9 | 230.4 | 228.5 | 221.7 | 469.5 | 480.7 | 466.4 | 427.4 |
| Machinery and machine-shop products | 234.8 | 237.5 | 235.8 | 236.4 | 48 | 500.7 | 491.0 | . 2 |
| Engines and turbines | 230.6 | 279.5 | 236.7 | 284.6 | 584.5 | 601.4 | 617.6 | 578.6 |
| Tractora | 191.8 | 193.0 | 180.1 | 181.7 |  | 355. | 285.4 | 314.2 |
| Agricultural machinery, excluding tractors | 262.2 | 267.4 | 263.7 | 225.7 | 573.3 | 595.4 | 571.2 | 462.8 |
| Machtne tools | 127.7 | 128.4 | 129.7 | 138.2 | 238.7 | 242.9 | 240.7 | 242.3 |
| Ma,chine-tool acces | 200.4 | 214.5 | 214.4 | 214.4 | 361.1 | 383.5 | 389.9 | 361.7 |
| Textile machinery | 188.6 | 191.6 | 189.8 | 166.3 | 437.9 | 459.1 | 444.8 | 34.8 .9 |
| Pumpe and pumpjng equipment | 266.5 | 272.3 | 278.7 | 298.0 | 585.2 | 596.5 | 610.3 | 614.1 |
| Typewritere | 140.8 | 145.9 | 147.0 | 89.2 | 318.7 | 325.2 | 325.0 | 186.9 |
| Cash registers; ,adinh, and calculating machines |  | 232.9 | 33.8 | 192.5 | 506 | 505.9 | 489.4 | 378.0 |
| Weahing machines, wringers, and driers, domestic |  | , |  | 195.5 |  | 480.9 |  | 395.5 |
| Sewing machines, domestic and inductrial |  | 178.6 | 177.2 | 152.9 |  |  | 428.0 | 331.1 |
| Refrigerators and refrigeration equipment | 239.4 | 241.3 |  | 219.6 | 489.3 | 508.9 | 472.3 | 426.3 |
| TRANSPORTATION EQUUTPME EXCEFT AGIOMOBILES |  | 3.7 | 276.0 | 253.7 | 552. 4 | 561.2 | 566.4 | 492.5 |
| Locomotives |  |  |  | 368.0 | 907.3 | 913.7 | 916.4 | 760.3 |
| Cars, electric- and stoumrailroad |  |  |  | 224.8 |  | 492.5 | 478.5 | 482.1 |
| Aircraft and parta, excluding aircraft engines | 328.5 | 321.5 | 315.3 | 326.0 | 661.1 | 649.2 | 63). 2 | 622.4 |
| Aircraft engines | 287.4 | 290.8 | 282.4 | 301.1 | 533.1 | 517.5 | 493.5 | 485.1 |
| Shipbuilding and bootbuilding | 149.8 | 157.2 | 167.6 | 126.6 | 305.3 | 321.7 | 345.7 | 243.1 |
| Motorcycles, bifcycles, and parts | 154.7 | 177.5 | 185.2 | 186.0 | 300.2 | 345.7 | 370.5 | 379.4 |
| AUTOMOBILI | 195.0 | 183.2 | 190.5 | 287.3 | 423.3 | 380.9 | 2.6 | 355.3 |
| NONFERROUS MEPALS AND ITIEI PRODUCTS | 169.1 | 173.8 | 173.7 | 171.4 | 361.2 | 368.1 | 362.5 | 332.1 |
| Smelting and refining, primary, of nonforrous metals | 151.5 | 151.6 | 149.8 | 147.7 | 338.1 | 329.3 | 321.6 | 299.4 |
| Alloying; and rolling and drawing of nonferrous. metais, except'aluminum. | 133.5 |  |  | 140.0 |  | , | 268.9 | 262.7 |
| Clocks and watches | 127.6 |  |  | 122.4 | 304.1 | 331 | 327.4 | 264.3 |
| Jeweliry (precious metals) and jewelers' findings | 178.1 | 181.8 | 182.6 | 171.0 | 345.2 | 372.0 | 362.4 | 297.0 |
| Silverware and plated ware | 217.9 | 225.2 | 224.2 | 195.5 | 481.1 | 526.7 | 522.4 | 431.0 |
| Lighting equipment | 147.4 | 150.6 | 148.4 | 177.7 | 317.8 | 305.5 | 293.3 | 320,4 |
| Aluminum manufectures | 165.8 , | 179.3 | 181.5 | 170.0 | 315.1 | 338.0 | 347.0 | 301.6 |
| Sheet-metal work, not elsewhere classified | 189.3 | 186.2 | 187.8 | 200.7 | 420.9 | 420.7 | 413.2 | 417.6 |

See explanatory notes, sections C, F, and G, and the glossary for definitions.

TABIE 10: Indexes of Production-Worker Pmployment and Weekly Pay Rolls in Manufactixing Industrics - Conbinued

| Industry group and induebry | Employment indexes |  |  |  | Pay-roli Indexee |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $19^{4} 48$ |  |  | 1947 | 1048 |  |  | 1947 |
|  | Tuly | June | May | July | July | June | Ma | July |
| LUMBER AND TIMRER BASIC FROUUCTS I |  | 19 | 183.6 | 171.5 |  | , | 161.1 | $3 \times 2.2$ |
| Sawmills and logring camps |  | 203.ć | 200. | 188.1 |  |  |  |  |
| Flaning and plywood mills | 186.6 | 184.2 | 182.0 | 165.5 | 456.3 | 456.1 | 425.1 | 357.0 |
|  |  |  |  |  |  |  |  |  |
| PRODUCTS |  | . 8 | 139.7 | 135.7 | 320.4 | 326.0 | 325.6 | 293.6 |
| Nattresses and bedspringe | 151.1 | 152.3 | 152.0 | 139.2 | 330.5 | 324.9 | 318.0 | 287.3 |
| Furniture | 128.2 | 130.3 | 131.1 | 125.9 | 296.5 | 304.2 | 307.2 | 274.4 |
| Wooden bozes, other than cigar | 117.2 | 117.3 | 11.4.8 | 123.8 | 297.3 | 304.3 | 281.4 | 301.8 |
| Caskets and other morticians' goods |  |  |  | 137.4 |  | 264.7 |  | 260.6 |
| Wood preserving | 11.3 | 124 | 122 | 1349.4 | 348.6 | 334.5 | 328.6 | 392.7 |
| Wood, turned and shap | 126 | 134 | 130 | 123.0 | 297.1 | 301.5 | 303.9 | 268.5 |
| STONE, CIAY, ARD GLASS PRODLCTS | 153 | 0 | 15 | 146.5 | 335.5 | 347.1 | 343.4 | 293.8 |
| Glass and glassware <br> Glase products made from purchased glass |  | 2 | 1. | 158 | 316.8 | 348.5 | 352.5 | 312.8 |
|  |  | 123.2 | 12 P 2 |  | 257.0 |  | 264.5 | 247.2 |
| Cement Brick, tile, and terra cotta |  | 154.5 | 152.2 | 146 | 328.7 | 323. | 314.3 | 283.5 |
|  | 237. | 138.0 | 133.8 | 126.3 | 335.1 | 329.9 | 320.8 | 276.4 |
| Pottery and related products | 1.64 .4 | 170.2 | 126.9 | 160.4 | 336.6 | 355.2 | 351.1 | 308.6 |
| Gypsum | 1136.4 | 1334.0 | 132.5 | 12.4 | 307.5 | 306.1 | 303.7 | 260.2 |
| Wallboard, plastor (except gypsum), and mineral wool Lime | 156.7 | 154.9 |  | 124.3 | 426 | 41.2 | 403.8 | 333.6 |
|  | 99.4 | 98.3 | 100.8 | 98.0 | 268.9 | 270. | 273.3 | 237.7 |
| Marble, granite, slate, and other products | 100.7 | 99.2 | 97.8 | 90.5 | 184,1 | 185.0 | 183.2 | 156.7 |
|  | 237.2 | 230.4 | 226.0 | 220.0 | 488.4 | 502.4 | 490.6 | 386.0 |
|  | 130.9 | 136.0 | 137.1 | 122.7 | 327.2 | 334.3 | 329.9 | 293.2 |
| Nondureble goods |  |  |  |  |  |  |  |  |
| TEXTILE-MILI PRODUCTS AND OTHER |  |  |  |  |  |  |  |  |
| FIBER MANJEACTURES | 10 |  | 113.0 | 103.8 | 285.4 | 304 | 303.8 | 243.7 |
| Cotton manufactures, except smallvares | 121.6 | 126.1 | 125.4 | 117.7 | 341.3 | 365.9 | 369.7 | 302.6 |
| Cotton smsillwares | 95.1 | 99.4 | 102.3 | 93.3 | 226.0 | 238.0 | 238.3 | 200.5 |
| Sili and rayon goods Woolen end worsted manufactures, except dyeing and finishing | 85.4 | 89.0 | 80.3 | 79.0 | 257.1 | 271.5 | 268.6 | 203.0 |
|  | 106.0 | 110.3 | 109.9 | 100.3 | 294.9 | 311.5 | 307.9 | 243.0 |
| Hosiery | 74.8 | 80.5 | 81.3 | 74.9 | 171.1 | 185.6 | 183.6 | 140.5 |
| Knitted cloth <br> Knitted outerwear and knitted gloves | 96.5 | 96.8 | 97.4 | 89.6 | 223.9 | 223.2 | 223.1 | 192.8 |
|  | 94.6 | 103.6 | 109.8 | 90.7 | 212.0 | 242.2 | 247.6 | 188.4 |
| Knltted underwear <br> Dyeing and finishing textiles, including woolen and worsted | 114.4 | 118.1 | 119.3 | 107.0 | 283.4 | 301.8 | 303.4 | 250.2 |
|  | 119.6 | 122.5 | 123.9 | 113.5 | 278.4 | 297.8 | 299.0 | 241.1 |
| Carpets and ruge, wool | 137.4 | 137.6 | 136.4 | 119.7 | 342.1 | 345.4 | 332.8 | 254.6 |
| Hate, fur-felt | 80.0 | 87.0 | 84.2 | 83.3 | 174.3 | 197.4 | 184.6 | 171.8 |
| Jute goods, except felts | 112.3 | 114.2 | 112.0 | 107.5 | 272.4 | 277.5 | 272.2 | 232.2 |
| Cordage and twine | 123.7 | 127.0 | 123.7 | 116.0 | 287.6 | 306.5 | 303.4 | 252.7 |

Soe axplenatory notes, sections $C ; F$, and $G$, and the glossary for definitions.

TABLE 10: Indexes of Production-Worker Employment and Waekly Pay Rolls in Manufacturing Induatries - Continued

| Industry group and industry | Employment indexes |  |  |  | Pay-roll Indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 |  |  | 1947 | 1948 |  |  | 1947 |
|  | July | June | May | July | July | June | May | July |
| APPAREL AND OTHER FINISHED TEXTITLE PRODUCTS | 135.6 | 138.6 | 1.37 .1 | 125.7 | 303.6 | 303.6 | 297.9 | 266.2 |
| Men's clothing, not elsewhere classified | 129.1 | 1.36 .9 | 134.9 | 122.1. | 294.1 | 312.9 | 311.5 | 260.0 |
| Shirts, collars, nightwear | 102.5 | 1.08.2 | 109.4 | 96.9 | 246.6 | 258.5 | 266.8 | 219.3 |
| Underwear and neckwear, men's | 98.5 | 107.4 | 108.3 | 91.0 | 269.6 | 289.1 | 296.7 | 230.8 |
| Work shirts | 130.9 | 131.4 | 129.2 | 99.1 | 323.5 | 330.9 | 325.8 | 247.2 |
| Women's clothing, not elsewhero classified | 152.7 | 152.1 | 1.49 .4 | 139.8 | 326.6 | 310.7 | 299.3 | 283.1 |
| Corsets and allied garments | 90.8 | 96.5 | 93.8 | 90.1 | 197.8 | 210.8 | 213.0 | 187.4 |
| Millinery | 87.8 | 79.4 | 80.4 | 80.4 | 165.2 | 133.2 | 127.9 | 145.5 |
| Handkerchiefs | 76.8 | 96.6 | 99.2 | 82.9 | 180.3 | 231.0 | 239.1 | 196.7 |
| Curtains, draperies, and bedapreade | 241.2 | 148.9 | 143.8 | 130.4 | 316.8 | 339.2 | 334.8 | 283.9 |
| Housefurnishings, other than curtains, etc. | 25.6 | 249.9 | 248.2 | 238.2 | 576.8 | 587.3 | 544.2 | 496.7 |
| Textile bags | 223.6 | 216.4 | 212.8 | 213.0 | 493.2 | 470.8 | 464.8 | 438.2 |
| LEATHER AND LEATHER PRODUCTS $1 /$ | 108.3 | 107.4 | 1036 | 107.5 | 236.9 | 233.4 | 215. 4 | 229.0 |
| Leather | 94.3 | 95.7 | 94.9 | 96.7 | 203.6 | 205.2 | 201.1 | 199.6 |
| Boot and shoe cut stock and findings: | 88.6 | 88.9 | 86.9 | 94.4 | 178.6 | 179.9 | 169.6 | 182.4 |
| Boots and shoes | 104.0 | 102.5 | 97.7 | 103.0 | 23.1 .1 | 225.3 | 202.8 | 224.6 |
| Leather gloves ond mittens | 27. 2 | 128.8 | 123.9 | 118.9 | 267.4 | 273.6 | 256.9 | 227.2 |
| Trunks and suitcases | 259.6 | 159.3 | 158.6 | 141.0 | 339.5 | 339.5 | 339.8 | 274.3 |
| FOOD | 160.0 | 147.4 | 127.7 | 153.4 | 353.5 | 330.1 | 281.3 | 317.1 |
| Slaughtering and meat packing | 140.9 | 139.9 | 86.0 | 135.0 | 305.9 | 315.4 | 211.3 | 280.9 |
| Butter | 195.4 | 201.2 | 194.5 | 192.7 | 429.5 | 429.8 | 407.2 | 387.7 |
| Condenced and evaporated milk | 205.9 | 211.2 | 198.3 | 216.3 | 506.3 | 520.3 | 477.9 | 470.6 |
| Ice cream | 184.9 | 179.1 | 1.66 .0 | 189.4 | 363.2 | 341.5 | 311.3 | 343.7 |
| Flour | 143.4 | 139.1 | 134.2 | 142.0 | 343.5 | 317.3 | 294.0 | 326.1 |
| Feeds, prepared | 268.6 | 166.4 | 161.5 | 171.4 | 395.2 | 389.0 | 367.4 | 366.8 |
| Cereal preparations | 164.5 | 155.2 | 1.52 .6 | 156.5 | 374.8 | 353.7 | 333.6 | 329.9 |
| Baking | 118.9 | 113.0 | 115.4 | 113.7 | 247.6 | 245.4 | 235.1 | 218.0 |
| Sugar refining, cane | 134.4 | 115.3 | 111.7 | 130.9 | 312.0 | 243.4 | 227.9 | 275.0 |
| Sugar, beet | 62.0 | 60.2 | 54.6 | 69.7 | 128.0 | 123.0 | 111.8 | 131.3 |
| Confectionery | 101.2 | 102.9 | 100.5 | 103.9 | 228.7 | 231.1 | 210.4 | 211.4 |
| Beverages, nonalcoholic | 787.0 | 172.2 | 161.7 | 149.1 | 342.0 | 304.2 | 277.0 | 257.4 |
| Malt liquors | 126.1 | 185.0 | 1.63 .9 | 182.8 | 391.8 | 351.0 | 299.9 | 349.6 |
| Canning and preserving | 163.8 | 111.7 | 91.7 | 163.8 | 421.2 | 282.9 | 234.2 | 401.8 |
| TOBACCO MANUFACTURES 1/ | 88.8 | 90.6 | 90.5 | 89.8 | 205.5 | 205.8 | 201.3 | 200.0 |
| Cigarettes | 122.4 | 121.2 | 120.7 | 120.1 | 270.0 | 263.1 | 253.1 | 253.7 |
| Cigars | 74.7 | 78.1 | 78.3 | 77.0 | 171.1 | 175.8 | 175. | 169.6 |
| Tobacco (chewing and smoking) and snuff | 75.6 | 76.1 | 75.9 | 77.4 | 164.1 | 166.7 | 161.8 | 171.0 |

See explanatory notes, sections $C, F$, and $G$, and the glossary for definitions.

TABIE 10: Indexes of Production-Worker Emiovment and Weeky Fay Rolls in Manufacturing Induetriec - Continued.

| Induetry groun and industry | Friployment Indexce |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1348 |  | 347 |  | 1943 |  | 3.947 |
|  | July | Time | May | July | July | June | May | July |
| PAFER AND AILIED PGOITCLS I/ | $14 E_{i}, 1$ | 346.9 | 146.5 | 2.43 .3 | 341.7 | 337.8 | 331.1 | 3040.2? |
| Puper and pulp | 149.5 | 148.2 | 148.5 | 143.2 | 358.9 | 347.7 | 343.2 | 314.5 |
| Popor coods, other | 100.2 | 163.6 | 163.0 | 159.5 | 353.3 | 358.4 | 355.0 | 317.2 |
| Tnvelopes | 148.9 | 144.0 | 145.8 | 332.7 | 2r2,9 | 884.0 | 283.3 | 250.7 |
| Paner bago | 156.3 | 127.8 | 158.5 | 1.60 .5 | 330.0 | 364.4 | 355.4 | 338.6 |
| Paper bozos | 133.0 | 133.9 | 131.8 | 133.6 | 294.9 | 304.8 | 290.4 | 27.3 .6 |
| privitng, fubilishing, and alifed Indurifies 1! | 133.1 | 122.3 | 132.0 | $131 . c$ ć | 260.1 | 264.9 | 362.2 | 238.0 |
| Newspapers and periodicals | 123.7 | 12.3 .8 | 123.3 | 179.8 | 235.5 | 238.1 | 236.5 | 208.9 |
| Printing; book and job | 13.43 .4 | 244.5 | 1.44 .3 | 244.4 | 296.0 | 299.3 | 296.7 | 270.5 |
| Lithographing | 1128.9 | 118.3 | 117.6 | 119.8 | 223.5 | 230.3 | 224.1 | 207.4 |
| Bookbinaing | 1129.5 | 136.3 | 136.2 | 743.6 | 290.1 | 310.0 | 302.9 | 299.2 |
| CHEMICALS ANO ALITED PRODUCTN | 1195.7 | 158.4 | 198. 4 | 195.0 | 430.2 | 432.6 | 422.5 | 387.7 |
| Fainta, varnishes, and colore | 1180.9 | 180.9 | 179.4 | IITY. 1.9 | 357.3 | 349.7 | 343.9 | 308.2 |
| Drucs, medicines, and insectitides | 228.6 | 230.6 | 231.2 | 242.1 | 475.7 | 485.7 | 481.5 | 449.5 |
| Ferfumes and commetics | 104.6 | 1.04 .7 | 105.2 | 112.2 | 2050 | 213.2 | 209.7 | 205.0 |
| Soap | 146.4 | 1.44 .3 | 142.2 | 157.2 | 337.9 | 329.8 | 322.9 | 310.2 |
| Rayon and allied products | 132.9 | 132.7 | 131.2 | 126.1 | 288.9 | 279.7 | 275.1 | 249.8 |
| Chemicels, not elsewhers classified | 275.8 | 283.5 | 279.8 | 262.8 | 573.2 | 585.9 | 563.2 | 533.7 |
| Explosives and onfoty fuses | 325.4 | 316.5 | 304.7 | 269.1 | 657.7 | 638.4 | 592.0 | 495.0 |
| Compressed and liquefied gases | 251.5 | 253.7 | 250.9 | 246.8 | 517.0 | 504.3 | 491.7 | 431.4 |
| Anmunition, smail-urme | 179.8 | 101.1 | 181.6 | 160.9 | 439.8 | 420.3 | 404.1 | 359.1 |
| Fireworka | 1289.3 | 211.6 | 219.7 | 207.6 | 505.7 | 571.3 | 594.9 | 534.3 |
| Cottonseed oil | 81.8 | 8 c .8 | 89.1 | 76.0 | 239.6 | 227.8 | 245.9 | 193.8 |
| Fertilizers | 123.4 | 131.4 | 156.1 | 126.2 | 361.0 | 377.3 | 428.3 | 334.5 |
| PRODUCTS OF FERTROLEUM AND COAL $1 /$ | 160.7 | 160.3 | 157.3 | 156.2 | 353.4 | 342.2 | 335.8 | 300.5 |
| Petroleum refining | 159.8 | 159.2 | 156.7 | 156.1 | 344.9 | 330.8 | 326.2 | 292.6 |
| Coise and byproducte | 1147.0 | 145.9 | 143.2 | 137.7 | 329.7 | 330.1 | 320.6 | 270.5 |
| Paving materials | 111.0 | 110.3 | 97.1 | 134.0 | 261.2 | 249.2 | 222.8 | 236.6 |
| Roofing materials | 215.5 | 218.2 | 213.2 | 225.3 | 531.9 | 523.3 | 508.5 | 493.8 |

See explanatory notes, cections C, F, and G, and the glosaary for definitiona\%,
22.

TABIE 10: Indexes of Production-Worker Fmployment and Weekly Pay Rolls in Manufacturing Industries - Continued

| Industry group and industry | Employment Indexee |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1048 |  |  | 1947 | 1948 |  |  | 1947 |
|  | July | June | May | July | July | June | May | July |
| RUBBER PRODTJCTS 1/ | 157.5 | 161.6 | 161.1 | 165.1 | 329.1 | 330.2 | 318.9 | 331.2 |
| Rubbor tiros and inner tubes | 167.6 | 169.4 | 168.5 | 189.6 | 329.8 | 322.0 | 305.7 | 350.0 |
| Rubber boots and shoes | 239.4 | 146.9 | 146,4 | 135.1 | 321.7 | 329.7 | 328.1 | 290,0 |
| Rubber goods, other | 152.1 | 157.5 | 157.5 | 148.0 | 330.1 | 343.7 | 337.7 | 304.9 |
| MISCEJILANEOUS INDUSTRIES | 173.6 | 4 | 176.6 | 174.1 | 373.8 | 386.1 | 384.2 | 349.2 |
| Instrumenta (professional and scientific), and fire-control equipment | 246.1 | 243.4 | 242.8 | 243.1 | 4846 | 488.8 | 492.6 | 453.3 |
| Photographic apparatus | 219.7 | 215.6 | 214.1 | 217.0 | 441.5 | 436.3 | 431.0 | 385.9 |
| Optical instruments and ophthalmic goods | 199.9 | 214.6 | 224.1 | 234.6 | 390.9 | 419.6 | 426.7 | 433.7 |
| Pianos, organs, and parts | 163.1 | 172.9 | 175.2 | 191.6 | 337.9 | 361.1 | 367.8 | 402.7 |
| Games, toye, and dolls | 218.1 | 213.8 | 210.3 | 188.8 | 510.3 | 508.2 | 496.7 | 410.1 |
| Buttons. | 111.2 | 114.8 | 114.2 | 95.4 | 253.7 | 271.6 | 269.4 | 209.2 |
| Fire extinguishers | 270.3 | 269.3 | 260.9 | 284.9 | 570.0 | 592.8 | 563.4 | 600.0 |

See explanatory notes, sections C, F, and G, und the glossary for defintions.

1) See footnote 1, table 8 .

TABIE 11: Indexes of Employment and Weekly Pay Rolls in Selected Nonmanufacturing Industries
(1939 Average $=100$ )

| Industry group end industry | Eranloynont indexes |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 |  | - 1947 |  | 1948 |  | 1947 |  |
|  | July | June | May | July | Iudy | June | May | -July |
| MINIITG: |  |  |  |  |  |  |  |  |
| Coal: |  |  |  |  |  |  |  |  |
| Anthracite | 91.1 | 92.6 | 91.4 | 88.7 | 192.7 | 246.0 | 246.2 | 200.3 |
| Bituminous coal | 101.7 | 109.6 | 108.9 | 97.5 | 293.8 | 344.2 | 344.3 | 229.7 |
| Metal | 99.1 | 100.2 | 98.7 | 97.8 | 202.2 | 208.2 | 206.1 | 186.1 |
| Iron | 159.6 | 159.6 | 155.0 | 154.3 | 333.1 | 345.0 | 336.3 | 307.5 |
| Copper | 1106.6 | 106.9 | 106.0 | 102.9 | 242.4 | 232.9 | 232.6 | 211.6 |
| Lead and zinc | 92.6 | 100.1 | 100.6 | 100.0 | 193.7 | 238.7 | 238.9 | 210.1 |
| Gold and silver | 32.0 | 31.9 | 31.3 | 31.3 | 55.2 | 54.2 | 54.6 | 47.2 |
| Miscellaneous | 191.3 | 188.6 | 182.9 | 187.9 | 383.0 | 360.7 | 352.5 | 327.6 |
| Quarrying and nonmetallic | 126.7 | 126.8 | 124.2 | 129.4 | 322.3 | 321.7 | 312.5 | 307.0 |
| Crude petroleum and natural gas production | 119.7 | 116.7 | 112.5 | 114.3 | 241.1 | 227.1 | 223.4 | 204.9 |
| TRANSPORTATION AND PUBLIC UMILITITES |  |  |  |  |  |  |  |  |
| Class I steam railroads I/ | 137.9 | 136.9 | 133.8 | 140.0 | 3/1 | 3/ | 3/ | 31 |
| Street railways and busses | $12{ }^{\prime} 7.2$ | 128.3 | 128.5 | 130.9 | 232.2 | 231.2 | 228.1 | 222.1 |
| Telephong | 202.5 | 199.4 | 198.4 | 193.3 | 336.4 | 327.1 | 326.1 | 302.2 |
| Telegraph | 95.7 | 96.0 | 96.3 | 101.5 | 233.2 | 228.5 | 231.1 | 215.2 |
| Electric light and power | 115.7 | 114.0 | 112.3 | 109.3 | 202.5 | 196.2 | 192.1 | 178.4 |
| TRADE: 3/ |  |  |  |  |  |  |  |  |
| Wholesale | 116.2 | 115.3 | 114.5 | 111.1 | 215.3 | 211.8 | 211.8 | 196.5 |
| Retail | 111.9 | 113.6 | 113.1 | 110.2 | 218.9 | 218.3 | 213.8 | 198.5 |
| Food | 113.8 | 11.5 .5 | 116.3 | 113.0 | 232.9 | 231.9 | 227.0 | 213.8 |
| General merchandise | 121.3 | 124.8 | 123.7 | 116.7 | 234.0 | 236.5 | 1292 | 214.11 |
| Apparel | 107.9 | 115.4 | 115.2 | 106.8 | 202.3 | 214.7 | 211.8 | 192.0 |
| Furniture and housefurnishings | 90.6 | 92.0 | 91.9 | 86.0 | 178.8 | 180.2 | 180.3 | 155.8 |
| Automotive | 109.8 | 108.5 | 107.0 | 104.2 | 213.4 | 209.5 | 205.3 | 184.8 |
| Lumber and building materials | 128.8 | 126.3 | 123.7 | 121.4 | 257.3 | 252.8 | 242.6 | 218.8 |
| SERVICE: |  |  |  |  |  |  |  |  |
| Hotels (year-round) 4/ | 116.0 | 117.6 | 117.0 | 118.3 | 234.7 | 236.5 | 234.6 | 222.9 |
| Power laundries | 122.1 | 121.5 | 119.0 | 127.8 | 240.6 | 238.3 | 232.3 | 238.5 |
| Cleaning and dyeing | 259.2 | 162.9 | 160.6 | 167.9 | 303.0 | 324.8 | 312.4 | 310.5 |

See footnotes, table 9, and explanatory notes, sections $C, F$, and $G$.

1) Source: Interstate Comerce Commission.
a/ Not available.
3/ Includes all nonsupervisory employees and working sugervisors.
4/ Money payments only; additional value of board, room, uniforms, and tips, not included.

Sec. A. Scope of Employment Revisions - The employment estimates shown in this report for the industry divisions (e.g., manufacturing, mining, etc.) and induatry groups (e.g., iron and steel, electrical machinery, etc.) have been adjustod to levels indicated by Foderal Security Agency late through 1946 and have been carried forward from 1046 bench-mark levels, thereby providing consistent series.

Sec. B. Sources of Bench-Mark Data - The chief purpose of revisions published in the April 1948 DETAILED REPORT, was to adjust the levels of employment estimates to bench-mark data through 1946. In preparing estimates for private employment prior to 1939, the various industrial censuses taken by the Bureau of the Census were used as sources of bench-mork de.ta. Date obtained from the Fedcral Security Agency are the main bases for 1946 bench marks. Bench marks for State and local government are based on data compiled by the Bureau of the Census, while most of the data on Federal. Government employment is mide available by the U. S. Civil Service Commission. The Interstate Commerce Commission is the source for railroads, and the U. S. Maritime Comission for water transportation.

Sec. C. Reviaione of Production-Worker Estimates - Data for the manufacturing major inductry groups have beon ad.justed to levels indicated by Pederai Sacurity Agency data throuch 1946 and have boen carried forward wom 1946 bonch-mark levels, thereby providing consistent series. Eetimates for the individual manufacturing industries, formerly adjusted to data through 1945, are now being adjusted to 1946 bench-mark levels. As these revisions are completed, they are published in this roport and indicated by appropriato iootnotes. In the nonmanufacturing industrios, the entire series of mining industries have been adjusted to 1946 benchmark levels.

Since the data shown in this report cover only the current months, a set of summary sheets for each industry presenting comparable Iigures from January 1.939 to date, by months, will be provided upon request to the Bureau of Labor Statistics. Such requests should specify the series decirod.

Sec. D. How Employment Estimates Are Mado - Estimates of changes in the levol of omployment are based on reports from a sample group of establisiments, inesmuch as full coverage is prohibitively costly and time-consuming. In using a sample, it is essential that an accurato base be established from which estimates may be carried forward. This base or "bench mark" is eithor a complete count or an estimate with a satisfactory degree of accuracy.

When a new bench mark becomes available, estimates prepared since the last bench mark are reviowed to determine if any adjustment of level is required. This is the basic principle of employment estimating used by the BIS. It yields a satisfactory compromise between a slow but highly accurato complete count on the one hand, and a rapid but less accurate sample count on the other.

Briefly, the Bureau of Iabor Statistics computes employment estimates as follows: first, a bench mark or lovol of employment is determined; second, a sample of establishmonts is selected; and third, changes in employment indicatod by this reporting sample are applied to the bench mark to dotermine the monthly ostimates of employment between bench-mark periods. For exmple, if the labost complete data on employment for an industry were 40,200 in September 1945, and if the industry has a reporting sample of 13 establishments employing 23,200 workers in Soptember and 23,800 in October, the October ostimate would be prepared as follows:

$$
40,200 \times \frac{23,800}{23,200}=4.1,240
$$

In general, data showine month-to-month changes in employment reflect the iluctuations shown by establishments reporting to the Bureau of Labor Statistics. However, the usual estimating method is inadequato in the finameo and service industries, which have a preponderance of small catablishments. A special sampling procedure has been introduced, involving the scientific selection of a ample of cities and of a represontative list or blocks in these cities. Data cbtained from the establishments in these blocks yield substantially bettor estimates of menth-tomonth changes in employment in the finance and sorvice industries than would be obtained by the use of the sampling procedure employed for other industries. For railroads and the Federal Government, complete reports of empioyment aro available.

Why Revisions Are Necessary - Because reports are not immediately available fron now irins, they are frequently introduced into the BLS sample after they heve been in oporation for some time. This lapse of time produces a rather consistont understatemont which becomes larger from year to year. It is important, therefore, that estimates not bo allowed to go uncorrected for too long a period. The most recont revisions correct for the downward bias thet hed accumulated in the nonmanuracturing series beginning January 1945 and in the monufacturing series beginning January 1946. Revisions in some industry divisions were made in order to incorporate greater refinements in methodology and new source matorials that have bocomo availablo.

Sec. E. Comparability With Other Types of Employment Data - The Burcau of Tabox Statistica employment ostimates aro based upon roports submitted by cooporating establishments and therefore differ. from employment information obtained by household interviows, such se the Monthly Report of the Labor Force.

The BIS estimates of employment in nonefricultural estoblishments differ from the Monthly Report of the Jabor Forco total nonagricultural employment estimates in several important respects. For example: (1) The BLS ostimates cover all full- and part-time wage and salary workers in private nonagricultural ostablishnents who worked or recelved pay during the pay period ending noarost the 1.5th of the month; in Federal establishments duxing the pay period ending just before the first of the month; and in state and local government during the pay period ending on or just bofore the last of the month. Persons whe workod in more than one establishment during the reporting pericd would be counted more than once; (2) Proprietors, self-empioyed persons, domestic servants, and unpaid family workers are excluded.

Sec. F. Pay-Roll Indexes - Cooporating ostablishments aro instructed to report pay rolls of production or nonsupervisory workers prior to deduction for old age and unemployment insurance, withholding taxes, bonds, and union dues. Pay for sick leave, holidays, and vacation taken is included. Respondents are instructod to exclude pay for vacations not tnken as well as cash estimates of any payments in kind. Bonsuees, unless earned and paid regularly each pay poriod, are also excluded.

The methodology for obtaining pay-roll estimates is similar to that for employment ostinates. Sample changes showing monthly movenents are used in projecting estailished bench marks to secure current pay-roll estimates. These pay-roll estimates are converted into indexos, uaing the 1939 avorage as a baso.

Sec. G. Source of Data - Employment and pay-roll estimates are based on reports from cooporating establishments. Excluding about 9,000 block-sample returne, the approximato number of establishments, and workers covered, for each of the industry divisions are shown bulow:
$\frac{\text { Approzimate Coverage of BLS Employment }}{\text { and Pay-Roll Samplo }}$

| Industry division | Number : Employeos or productionof |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Manufacturing | 34,200 | 7,503,000 | 59 |
| Mining | 2,800 | 361,000 | 53 |
| Contract construction | 14,000 | 492,000 | 25 |
| Public utilities | 7,200 | 912,000 | 77 |
| Trade: |  |  |  |
| Wholesale | 12,400 | 343,000 | 19 |
| Retail | 35,000 | 935,000 | 22 |
| Sorvice: |  |  |  |
| Hotels (yoar-round) | 1,200 | 133,000 | 35 |
| Powor laundries and |  |  |  |
| cleanings and dyeing | 3.,600 | 68,000 | 21. |

Soc. H. Covorege of Famloyment Fistinatos - The employment estimates shown in tables 1, 2, 3,6 , and 7 cover all full- and perttime wage and salsey woriong who woried or received pey during the pay poriod ending nearest the i5th of the month. Proprictors, selfemployed peisons, domostic servents, and personnel. of the armed forces are excluded. The estinetos and indexes shown in tables 8 and 10 refer to production and related workers as derined in the glossary, page viii.

Sec. I. Stato Estimates - State estimates are prepared in cooperation with varicus State ABenctes as indicated on page $v$. The estimates for manufacturing have beon adjusted to rocent dato mado avoilable under the Tederal Social Sucurity program. Sinco some states heve adjusted to mose rocent bench-mark data than others, and because varying mothods of computation ara used, the total of the state estimates dirfers from the:national total (soo tables 1 and 2). Because of these recent revisions the state estimates for manufacturine are not consisten's with the unreviscd data shown prior to June 1947 for total employment in nonegricultursl establishmenta, by state. Comparablo suriba of maniocturing estirates for ech stato, Jenuary 1943 to cate, and also For nonagricultural employment for selectod states, through Decombor ig46, are available upon roquest to tho cooporating stato agonoy or the appropriato pris regional office. Estimeto of nonapriculturcl omployment, by stato, for those States which ere now pablishing such estimates are ehow in table 6. These totais we consistent with the monufacturing estimates in table 7. As nonagriculturol estimates for adaitional States become availablo, thoy will be shown in teble 6.

Alabama - Dept. of Industrial Relations, Montgomery 5.
Arizona - Unemployment Componsation Div., Employmont Socurity Commission, Phoonix.
Arkansas - Employment Socurity Div., Dept. of Labor, Little Rock.
California - Div. of Labor Statistics end Research, Dopt. of Industrial Relations, San Francisco 3.
Connecticut - Employment Security Div., Dept. of Labor and Factory Inspection, Hartford 15.
Delaware - Federal Reserve Bank of Philadolphia, Philadelphia 1, Pa.
Florida - Unemployment Compensation Div., Industrial Commission, Tallahassee.
Georgia - Employment Security Agency, Dept. of Labor, Atlanta 3.
Idaho - Employment Security Agency, Industrial Accidont Board, Boise.
Illinois - Dept. of Labor, Chicago 1.
Indiana - Employment Security Div., Indianapolis 4.
Iowa - Employment Security Commission, Des Moines 8.
Kansas - State Labor Dopt., Topeka.
Louisiana - Div. of Employment Security, Dept. of Labor, Baton Rouge 4.

Maine - Unemployment Compensation Commission, Augusta.
Maryland - Dept. of Labor and Industry, Baltimore 2.
Massachusetts - Div. of Statistics, Dept. of Labor and Industries, Boston 10.
Michigan - Dept. of Labor and Industry, Lansing 13.
Minnesota - Div. of Employment and Security, Dept. of Social Security, St. Paul 1.
Missouri - Div. of Employment Security, Dopt. of Labor and Industrial Relations, Jefferson City.
Montana - Unemployment Compensation Commission, Helena.
Nebraska - Div. of Placcmont and Unemploymont Insurance, Dept. of Labor, Lincoln 1.
Nevada - Employment Security Dept., Carson City.
New Jersey - Dept. of Labor, Trenton 8.
New Mexico - Employment Security Commission, Albuquerque.
Now York - Div. of Placemont and Unemployment Insurance, Dept. of Labor, New York 17.
North Carolina - Dept. of Labor, Raleigh.
Oklahoma - Employment Security Commission, Oklahoma City 2.
Pennsylvania - Foderal Resorve Bank of Philadelphia, Philadelphia 1
(Manufacturing); Bureau of Research and Information, Dept. of Labor and Industry, Harrisburg (Nonmanufacturing).
Rhode Island - Div. of Census and Information, Dept. of Labor, Providence 2.
Tennessee - Dept. of Employmont Security, Nashville 3.
Texas - Bureau of Business Research, University of Texas, Austin 12.
Utah - Dept. of Employment Security, Industrial Commission, Salt Lake City 13.
Vermont - Unemployment Compensation Commission, Montpelier.
Virginia - Div. of Research and Statistics, Dept. of Labor and Industry, Richmond 21.
Washington - Employment Security Dept., Olympia.
Wisconsin - Statistical Dept., Industrial Commission, Madison 3.
Wyoming - Employment Security Commission, Casper.

New England - Regional Director, U. S. Bureau of Labor Statistics, Old South Bldg., 294 Washington.St., Boston 8, Massachusetts (Connecticut, Maine, Massachusetts;, New Hampshire, Rhode Island, Vermont).
North Atlantic - Regional Director, U. S. Bureau of Labor Statistics, 1000. Parcel Post Bldg., 341 Ninth Avenue, New York 1, New York (Delaware, Pennsylvania, New Jersey, New York):
North Central - Regional Director, U. S. Burean of Labor Statistics, 312 National War Agencies Bldg., 226 W. Jackson Blvd., Chicago 6, Illinois (Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, North Dakota, South Dakota, Wisconein).
Southern - Regional Director, U. S. Bureau of Labor Statistics, 6th Floor Silvey Bldg., 1l4 Marietta Sureet, N. W.; Atlanta 3; Georgia (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas).
Pacjfic-Rocky Mountain - Regional Director, U. S. Bureau of Labor Statistics, 546 Fedoral Office Bldg., San Francisco 2, California (Arizona, California, Colorado, Jdeho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyomine).

Technicel advice and aseistance on employment statistics in the states of Virginia, West Virginin, Maryland, and the Dietrict of Columbia will be given by the Buroau's Washington Office.

## G1,OKSAHY

Continental United Station - Covers only the 48 Stetes and the District of Columbia.

Contract construction - Covers only firras engaged in the construction business on a contract basis for others. Force-account construction workers, i.e., hired. directly by and on the pay rolls of Federal, State, and local govermment, public utilities; and private establishments, are excluded.

Defense Agencies - Covers civilian employees of the National Military Establishment, Maritime Commission, National Advisory Committee"for Aeronautics, The Panarn Canal, Philippine Alien Property AdmieisIrotion, Fhilippine War Domage Commission, Office of Selective Service Records, War Acscise Administration; Office of Defense Transportation, Office of Scientific Research and Development, National Security Resour ces Board.

Family Allowances - Represents the Government's contribution; the amount contributed by the personnel is included under pay rolls.

Federal Government-Executive branch - Includes U. S. Navy Yards, Federal ersenals, and force-account construction. Fourth-class postmasters are included under the executive branch in table 4 , but are excluded from the government deta shown in tables 1 and 3.

Employment shown here for the exocutive branch diffors from data published by the U. S. Civil Scrvicc Commission in the following respects: (1) Employmentitcollocted and published by the Civil Sorvice Comission as of the last day of the month, is hore prosontod as of the first day of the next month; (2) substituto rural mail carriors are excluded; (3) omployment in December of each year includos the edaitional postal omployoos necossitated by the Christmas season, excluded from publishod Civil Sorvice Commission figures starting 1942; (4) seaman and traineos who aro hircd and paid by private stoamsiip companies having contracts with the Maritime Commission are excluded; (5) the Paname Reilroad Company is shown horo undor Govornment corporations but is included under the executive branch by tho Civil Sorvice Comaission.

Financo - Covers establishmonts oporating in the fields of finance, insuranco, and real estate; excludes the Foderal Roserve District Banks and the mixed ownorship banks of the Farm Credit Administration.

Govornment - Covers Federel, State, and local govommontal ostablishmonts porforming logislative, oxocutivo, and judicial functions, as woll as all govornment-owned and oporatod establishments and institutions (arsonals, navy yards, hospltals, otc.), govornment corporations, and government forcc-account construction. Tho data shown in table 1 oxclude fourth-class pustmastons bocause they presumable have other major jobs.

Government corporations - Covers only throe corporations: The Panoma Railroad Company, the Foderal Roserve banks, and tho mixod-ownership benks of the Farm Crodit Administration. All other corporations are included undor the oxocutivo bronch.

Indexas of production-worker omployment - Estimates of productionworker employment exprossod as a percontage of tho avorage omployment in 1939.

Indexes of production-workor wookly pay rolls - Estimatos of productionworker wookly pay rolls oxprosscd as a porcentage of the avorage wookly pay roll for 1939.

Leave paymonts - Peymonts wore authorizod by Public Iaw 704 of the 79th Congress and werc continuod by Public Law 254 of tho 80th Congross to onlistod personnol who wore discharged prior to Soptomber 1,1946 for accruod and unuscd locve and to officors and enlisted personnol then on active duty for loavo accrued in cxccas of 60 days. Value or bonds represents face value; intercst is paid in addition whon bonds aro cashed. Lump-sum payments for terminal leave, which were authorizod by Public Law 350 of the 80 th Congress, and wore started Octobor 1947, are excluded horo and includod undor pey rolls.

Manufocturing - Covers only privately owned ostablishments; govornmontal monufacturing oponations such as arsonals and navy yards are excluded.

Military porsonnel and pay rolle - Data are for porsonnci on active duty. Rescrve persomol eire uxiluied if on inactive auty or if on activo cuty for a brivis training ow emergenoy puriod. personnal is as of the ifrest of the month and puy iolls are for tho ontire month. Throuch oatober 1, 1947, atscharged offteer porsonnel woro includod until the ond of their tominal-leave period; discharsed enionted personnoi were included from Octobur 1, 1946 through Octobor 1, 1047 only. After Octobur 1, 19hr, lump-sum tomajnal-leave paymonts at time of discharge (iutiorized by Public Law 350. $6 f$ the Both Consresa) were made.

Const Guard pay rolls for cull poidods and Aray pay rolls through April 1947 roprosent astual expendlturos. Other pay rolls copresent ostimatod obligations baised on an averace monthly persomol count. Pay rolls for the Niry and Const Gucrd include cash pajments for clothing-allowance balances in Jenucry, April., July, and October.

Mining - Covors establishmonta cngrged in the uxtraction from the earth of organic and inorganic minorela mich occur in naturn as solide, liquida, or gasee; faclurtes varione contrast scrvices roquired in mining operetime, such as removal $f$ overburden, tunnelling and sheftins, and the arilling or aciaizing of oil welle; also includus oro droasing, bunericiatins, ano concentraticn.

Honagricultural establlaiments - Governmental or privete bucinosa Gstablishmonts; (1) that are pingsically locatod witein continental Unitud States; and (2) whose principal activity can bo classified undor one of the following industry dirisions - manufacturing, mining, contract construction, trencportation and public utilities, trido, financo, cervico, ir sovormment.

Pay rolls - Privato pay rolla reprosent wookly pay rolls of both full- and pert-time production and relntad workors (or noneupervisory employeor and working supervi:sors) who worked oir recetved pay for any part of tho pay pericd onifis nuaruet tho lyth of the menth, boforo doductions for old-ae and unempoymont ineurance, group insurance, withholding tax, bonds, end unicn duee, but aitor deductions for drmased wcik. Includes par for sick leave, holideya, and vacations taken. Froludon cesh parmunts for vacetions not taken, rutroactivo pay not oarnod. during poriod reportad, valuo of payments in kind, and bonuces, unlose varnod and paid rogulariy euch pay poriod. In mining indestrice furthor deductions aro mede for oxplosives or other supplies iurnizhed by the compony. In cosl minine portal-to-portal pay is includod. Federal civilian pay rolls axe for all amployice befure Coductions for income tax, retircnont, sud bonds.

Froduction and related worisorg - Inc?udes woriking forcmon and sill nansupervisory workorc (incincing lead mon and trainoos) engaged in fabricating, procescins, assumbling, inspoction, pocoivinf; storage,
handing, packing, warohousine, shippine, maintonence, repair, Janiborial, watchman sorvices, prociucts develcpment, auxillicry production for plant's own hiso (e.g., powor plant) end recordkooping and other sorvices closely associnted with the abovo production operations. Excludos supervisory employees (above the working foreman levol) and their clerical steffs, routemen, selesmen, and other eroups of nonproduction worisers defined below moner wage and salary wortera.

Service - Covors establishmentg primarily ongased in rendering sorvices, to individuale and business firms. Excludes automobile ropair services, govormuent awns and operatud hospiftals, museums, etc., and domestic sorvico.

Trade - Covers establishnonton angeged in wholesale trade, i.e., selling merchandise to retmilery, and in retail trado i.e., selling merchandise for perbonal or household consumption, and rondering services incicental to the sele of goods. Includes auto ropair services.

Transportation and publio utilitios - Covers only privataly owned and oporatod ontorprisoa angacad in providing all typos of transportation and related servicea; tolophone, tolegraph, and other commaication services; or providing eloctricity, gas, steam, wetor, or sanitary acricico. Goverment owned and oporatod establishmonta aro included undor govorment.

Wage and salary workors - In addition to production and related workers as dofinod rbove, includes workers engaged in tho following activities: uzecutive, purchneing, finance, accouning, legal, personnol (including cafeterias, modical, etc.), profossional and tochnical activitios, $k a l e s, ~ s a l e s-d e l i v o r y, ~ a d v e r t i s i n g, ~ c r e d i t, ~$ collection, and in Installation and sorvicine of own products, routino office functions, factory supervision (above the working foroman lovel) and othor workers not included as production workers. Also includes employees on the ostablishment pay roll ongaged in new conctruction and misor additions or altorations to the plant who are utilized as a separate work forco (force-account construction workors).

Waze earnor - See production workers.
Washington, D. C. - Data for the executive branch of the Federal Govermont also include areas in Maryland and Virginia which are within the metropolitan area, as dofined by the Bureau of the Census.

